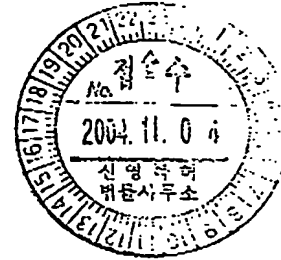


# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY



## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:  
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Date of mailing  
(day/month/year) **30 OCTOBER 2004 (30.10.2004)**

|   |   |
|---|---|
| Applicant's or agent's file reference<br><b>03FKWM020</b> | FOR FURTHER ACTION<br>See paragraph 2 below |
|---|---|

|   |  |   |
|---|--|---|
| International application No.<br><b>PCT/KR2004/001728</b> | International filing date (day/month/year)<br><b>13 JULY 2004 (13.07.2004)</b> | Priority date(day/month/year)<br><b>18 JULY 2003 (18.07.2003)</b> |
|---|--|---|

International Patent Classification (IPC) or both national classification and IPC  
**IPC7 F24C 7/08**

Applicant  
**LG ELECTRONICS, INC. et al**

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

|   |  |
|---|--|
| Name and mailing address of the ISA/KR<br>Korean Intellectual Property Office<br>920 Dunsan-dong, Seo-gu, Daejeon 302-701,<br>Republic of Korea<br>Facsimile No. 82-42-472-7140 | Authorized officer<br>CHO, Byoung Do<br>Telephone No. 82-42-481-5475 |
|---|--|



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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/KR2004/001728

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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**WRITTEN OPINION OF THE  
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International application No.

PCT/KR2004/001728

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |        |      |     |
|-------------------------------|--------|------|-----|
| Novelty (N)                   | Claims | 1-20 | YES |
|                               | Claims |      | NO  |
| Inventive step (IS)           | Claims | 1-20 | YES |
|                               | Claims |      | NO  |
| Industrial applicability (IA) | Claims | 1-20 | YES |
|                               | Claims |      | NO  |

**2. Citations and explanations :**

Reference is made to the following documents:

D1: KR 1997-75697 A (LG ELECTRONICS INC.) 10 December 1997

D2: KR 1998-57988 A (DAEWOO ELECTRONICS, LTD.) 25 September 1998

D3: KR 1996-11269 A (LG ELECTRONICS INC.) 20 April 1996

D4: KR 2000-18120 A (WON, BAEK HEE) 6 April 2000

D5: US 5,744,783 A (DAEWOO ELECTRONICS, LTD.) 28 April 1998

**1. Novelty and Inventive Step**

Independent claims 1 and 19 relate to apparatus for controlling an electric oven, comprising a key manipulation unit, a controller for controlling a temperature, at least one heater, wherein heater-on time of the heater is changed at a predetermined period as result of the comparison between a current temperature and the set temperature.

Independent claim 9 relates to a method of controlling an electric oven which comprises the step of comparing a current temperature with the set temperature and the step of heating the oven, wherein a heater-on time of the heater is elongated according to a temperature difference obtained in the comparing step.

Claims 1, 9 and 19 are characterized by the heating apparatus and method of electric oven that 'on-time' in on/off heating cycle is changed based on the difference between the current temperature and the set temperature.

The heating of the general oven is controlled by an on/off means as shown in D1-D5. However, none of D1-D5 disclose the subject matter of claims 1, 9 and 19 and it would not be obvious to a person skilled in the art to derive the said subject matter of claims 1, 9 and 19 from the on/off heating means and method disclosed in D1-D5.

(Continued on supplemental sheet)

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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

BOX V.

Therefore, the subject matter of claims 1, 9 and 19 is considered to be novel and to involve an inventive step, and the subject matter of claims 2-8, 10-18 and 20 is also considered to be novel and to involve an inventive step, since said claims are dependent on claims 1, 9 and 19 respectively.

**2. Industrial Applicability**

Since claims 1-20 relates to the control of the temperature of an electric oven, the subject matter of claims 1-20 is considered to be industrially applicable.

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